Abstract

INTEGRATED PROTECTION AND CONTROL SYSTEM FOR A POWER SYSTEM SUBSTATION

The substation control system, being responsive to a plurality of status input signals from various power system assemblies includes a plurality of input/output modules, each having a fiber-optic transceiver capability, wherein wire connections are used to communicate the status signals from the power system assemblies to input contacts of the respective I/O modules. The output signals from the I/O module are applied to a fiber-optic line. The system also includes a plurality of logic processors, each responsive to the signals on a fiber-optic line from a plurality of input-output modules for application to a plurality of protective relay devices, which provide protection operations and generate output signals. The logic processors also have a part in the overall protection arrangement. The output signals are communicated back to the power system assemblies for local control and protection thereof and to SCADA systems for remote control thereof.